

Serial No.: 10/071,987
Art Unit: 2813

3. (Original) A light-emitting diode as described in claim 2, wherein said other electrical components are electrically connected to said first and second electrical conducting traces and includes a protective element that electrically protects said light-emitting diode chip.

4. (Previously Presented) A light-emitting diode comprising:

a unitary cup component;

a plurality of electrical conducting traces formed on a surface of said cup component using an MID means;

a light-emitting diode chip mounted on said cup component and electrically connected to at least a first and second electrical conducting trace of said plurality of electrical conducting traces; and

a first connection part connected to at least said first and second electrical conducting traces for providing electrical connections to external circuitry; and

at least other electrical components located on the surface of the cup, wherein said other electrical components include an element that monitors light emission from said light-emitting diode chip or an element that monitors heat-generation from said light-emitting diode chip, wherein said monitoring element is electrically connected to at least a third electrical conducting trace of said plurality of electrical conducting traces formed by said MID means on said surface of said cup component so that it is independent from said first and second electrical conducting traces.

Serial No.: 10/071,987
Art Unit: 2813

5. (Original) A light-emitting diode as described in claim 4, further comprising a second connection part connected to at least said third electrical conducting trace for providing electrical connections to said external circuitry.

6. (Cancelled)

7. (Currently Amended) A light-emitting diode as described in claim 16, wherein said cup component includes a conductive component that links to said first and second leads.

8. (Currently Amended) A light-emitting diode as described in claim 16, wherein each of said first and second leads includes an extension component that extends to the vicinity of said light-emitting diode chip.

9. (Original) A light-emitting diode as described in claim 1, wherein said cup component comprises a resin or ceramic material.

10. (Previously presented) A light-emitting diode as described in claim 1, wherein said first connection part comprises at least a portion of said first and second electrical conducting traces.

11. (Previously presented) A light-emitting diode as described in claim 1, wherein said cup component further comprises a conductive component for linking to an object on which said light-emitting diode is held.

Serial No.: 10/071,987

Art Unit: 2813

12. (Original) A light-emitting diode as described in claim 1, further comprising a plurality of light-emitting diode chips mounted on said cup component, each having a first and second electrode, wherein said plurality of electrical conducting traces includes three or more electrical conducting traces for providing electrical connections to said first and second electrodes.

13. (Original) A light-emitting diode as described in claim 12, further comprising a number of leads corresponding to said three or more electrical conducting traces, each connected to an individual one of said three or more electrical conducting traces.

14. (Currently amended) A method for the manufacture of a light-emitting diode comprising:

~~a process of forming at least one pair of electrical conducting traces by an MID method on the surface of a cup component wherein the cup includes an insulating material having a unitary-cup structure;~~

~~a process of mounting a light-emitting diode chip on a bottom surface of the cup structure to produce a secondary assembly; and~~

~~a process of assembling the secondary assembly together with other components to complete the light emitting diode, including assembling and electrically connecting the secondary assembly via said pair of electrical conducting traces with first and second leads protruding from said cup structure, wherein said first and second leads are separate and distinct components from said first and second electric conducting traces a lead component, wherein the lead component is a projection on the other components.~~

Serial No.: 10/071,987
Art Unit: 2813

15. (Canceled)

16. (Previously presented)) A method for the manufacture of a light-emitting diode as described in claim 14, wherein the process of assembling the secondary assembly with other parts includes a process of resin mold formation so that said other components are covered by resin from the outside of said secondary assembly.

17.(Original) A light-emitting diode as described in claim 1, wherein said cup component comprises an insulating material.

18. (Currently Amended) A light-emitting diode comprising:

a unitary cup component;

a plurality of electrical conducting traces formed on a surface of said cup component using an MID means;

a light-emitting diode chip mounted on said cup component and electrically connected to at least a first and second electrical conducting traces of said plurality of electrical conducting traces;

a first connection part comprising first and second leads which protrude from said cup component and which are connected to at least said first and second electrical conducting traces, respectively, for providing electrical connections to external circuitry and wherein said first and second leads are separate and distinct components from said first and second electric conducting traces; and

Serial No.: 10/071,987
Art Unit: 2813

an outer mold substantially covering a bottom portion of said cup component.